

# **Local Hazard Mitigation Plan ANNEX**

## **City of San Pablo**

### **Introduction**

The City of San Pablo is a small city in Contra Costa County, California. The City has a population of 30,215 people, based on the 2000 census<sup>1</sup>. Last year, the City's budget was \$27,669,345 (\$50,095,078 total budget with redevelopment agency). The City employs 171 (including 43 part time) people. While the City provides local police services, fire services are supplied by a separate fire district. The City owns and operates the stormdrain system, while most other utilities (water, sewer, gas, electricity, cable, etc.) are provided by other agencies and companies under franchise agreements.

### **The Planning Process**

The City has a Safety Element to its General Plan (last updated in 1996) that includes a discussion of fire, earthquake, flooding, and landslide hazards. In addition, the City routinely enforces the requirements of the California Environmental Quality Act (CEQA) requirements (which, since 1988, have required mitigation for identified natural hazards). The City's effort has focused on building on these pre-existing programs and identifying gaps that may lead to disaster vulnerabilities in order to work on ways to address these risks through mitigation.

Many of the activities conducted by the City were fed into the planning process for the multi-jurisdictional plan. The City participated in various ABAG workshops and meetings, including the general "kick-off" meeting. In addition, the City provided information on facilities that are viewed as "critical" to ABAG.

Key City staff met to identify and prioritize mitigation strategies appropriate for the City. Staff involved in this meeting included the City Manager, the City Police Chief, the Public Works Director, the Building Official and the Planning Division Manager. At this meeting the general priorities and appropriate City departments were identified and potential funding sources were discussed. The public had the opportunity to comment on the draft mitigation strategies selected by City staff at the City Council meeting on February 20, 2007. The resolution adopting the plan and strategies was on the City Council agenda at that meeting.

### **Hazard and Risk Assessment**

The ABAG multi-jurisdictional Local Hazard Mitigation Plan, to which this is an Annex, lists nine hazards that impact the Bay Area, five related to earthquakes (faulting, shaking, earthquake-induced landslides, liquefaction, and tsunamis) and four related to weather (flooding, landslides, wildfires, and drought). These hazards also impact the City of San Pablo.

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<sup>1</sup> For complete Census information on this city, see <http://quickfacts.census.gov/qfd/states/06/0668294.html>

While the City has undertaken a number of general hazard mapping activities since the first Safety Element was prepared by the City, all of these maps are less detailed and are not as current as those shown on the ABAG website at <http://quake.abag.ca.gov/mitigation/>.

The City has had a number of landslides in the hills on the east side of the City. For example, in February of 1983 there was a landslide that encompassed Hillcrest Road and a large area down to San Pablo Dam Road (Woodward-Clyde, 1987). The majority of the site was repaired but a portion remains active.

Information on disasters declared in Contra Costa County is at <http://quake.abag.ca.gov/mitigation/disaster-history.html>.

The City examined the hazard exposure of City urban land based on the information on ABAG's website at <http://quake.abag.ca.gov/mitigation/pickdbh2.html>. Following is a summary for the 1,634 urban acres in the City:

- ◆ Earthquake faulting – The North Hayward Fault runs through the City which is of direct concern. 258 acres of urban land are within the Alquist-Priolo Earthquake Fault Study Zone where studies are required to ensure that no new structures intended for human occupancy are built across the fault.
- ◆ Earthquake shaking – 1,634 acres are in the highest two categories of shaking potential, in large part because the North Hayward fault runs through the City.
- ◆ Earthquake-induced landslides – the California Geological Survey has not completed mapping of this hazard in the City of San Pablo. However, because few areas have been mapped as landslides, this hazard is viewed as similar to that posed by weather-related hazards.
- ◆ Earthquake liquefaction – 1,138 acres are in areas of moderate, high, or very high liquefaction susceptibility.
- ◆ Tsunamis – The tsunami hazard has not yet been mapped in the East Bay. However, if one assumes that there is a 42 foot tsunami at the entrance to the Bay (as stated in the multi-jurisdictional LHMP), the wave height on the opposite bank in the Oakland-Berkeley area will be roughly half (21feet) and roughly 10% or 4 feet at each end (Alviso in San Jose and the north side of San Pablo Bay). In this situation, the wave height in San Pablo will be somewhere between 6 and 18 feet - a significant hazard in the areas of the city adjacent to the Bay. The California OES has funded the mapping of tsunami inundation evacuation planning maps for within San Francisco Bay, however, this mapping is not yet complete. This LHMP will be modified to examine the hazard of tsunamis when the maps are available
- ◆ Flooding – 130 acres are in the 100-year flood plain.
- ◆ Landslides – 231 acres are in areas of existing landslides.
- ◆ Wildfires – 5 acres are subject to high, very high, or extreme wildfire threat because of the wildland-urban interface.
- ◆ Dam Inundation – 1,383 acres are subject to dam inundation.
- ◆ Drought – all 1,634 acres are subject to drought.

The City also examined the hazard exposure of infrastructure based on the information on ABAG's website at <http://quake.abag.ca.gov/mitigation/pickdbh2.html>. For the 59 miles of roadway in the City,

- ◆ Earthquake faulting – Six miles of roadway are within the Alquist-Priolo Earthquake Fault Study Zone. The City understands that any of these roads that cross the Hayward fault may have to be closed should a major earthquake occur on this portion of the fault.
- ◆ Earthquake shaking – 59 miles of roadway are in the highest 2 categories of shaking potential.
- ◆ Earthquake-induced landslides – the California Geological Survey has not completed mapping of this hazard in the City of San Pablo.
- ◆ Earthquake liquefaction – 42 miles of roadway are in areas of moderate liquefaction susceptibility.
- ◆ Tsunamis – While tsunamis may be a hazard in the City of San Pablo, the mapping of the inundation area has not been completed at this time. This LHMP will be modified to examine the hazard of tsunamis when the maps are available.
- ◆ Flooding – 4 miles of roadway are in the 100-year flood plain, while an additional 15 miles are in other flood-prone areas.
- ◆ Landslides – 1 mile of road is in a landslide area, while 6 miles of roadway are in an area that experiences few landslides.
- ◆ Wildfires – while no miles of roadway are subject to high, very high, or extreme wildfire threat, 25 miles of roads are in wildland-urban interface threat areas.
- ◆ Dam Inundation – 51 miles of roadway are in an area subject to dam inundation.
- ◆ Drought – is not a hazard for roadways.

Finally, the City examined the hazard exposure of critical health care facilities, schools, and city-owned buildings based on the information on ABAG's website at <http://quake.abag.ca.gov/mitigation/pickcrit.html>. For the critical facilities in the City, the following apply:

- ◆ Earthquake faulting – While the North Hayward Fault runs through the City, no critical facilities are located in the area immediately adjacent to the fault (in the Alquist-Priolo Earthquake Fault Study Zone).
- ◆ Earthquake shaking – all 9 schools, 8 health care facilities, and 10 city-owned facilities are in the highest two categories of shaking potential.
- ◆ Earthquake-induced landslides – the California Geological Survey has not completed mapping of this hazard in the City of San Pablo.
- ◆ Earthquake liquefaction – 4 health care facilities, 9 schools and 3 city-owned facilities are in areas of moderate liquefaction susceptibility.
- ◆ Tsunamis – While tsunamis may be a hazard in the City of San Pablo, including to critical facilities, the mapping of the inundation area has not been completed at this time. This LHMP will be modified to examine the hazard of tsunamis when the maps are available.
- ◆ Flooding – 1 school is within the 100-year flood plain or in other flood-prone areas.
- ◆ Landslides – no critical health care facilities, schools, or city-owned facilities are in areas of existing landslides.

- ◆ Wildfires – No critical facilities are in wildland-urban interface threat areas.
- ◆ Dam Inundation – 8 health care facilities, 8 schools and 10 city-owned facilities are in an area subject to dam inundation.
- ◆ Drought – Drought will not affect these facilities, except for impacts on the EBMUD-operated water supply and distribution system.

A significant portion of the City is located in flood-prone areas, and there are 5 repetitive loss properties listed at <http://quake.abag.ca.gov/mitigation/pickflood.html>. These properties resulted in 11 claims totaling \$141,895.

The City plans to work with ABAG during 2007 to improve the risk assessment information being compiled by ABAG by providing information on unreinforced masonry buildings and soft-story apartments located in the City.

Drought, though a potential problem in the City, is not fully assessed. The City will work with ABAG and various water supply agencies on this issue.

The City plans to work with ABAG to develop specific information about the kind and level of damage to buildings, infrastructure, and critical facilities which might result from any of the hazards previously noted.

As these impacts are not yet fully developed, the City has reviewed the hazards identified and ranked the hazards based on past disasters and expected future impacts. The conclusion is that earthquakes (particularly shaking), flooding, wildfire, and landslides (including unstable earth) pose a significant risk for potential loss.

## **Mitigation Activities and Priorities**

As a participant in the ABAG multi-jurisdictional planning process, City of San Pablo staff helped in the development and review of the comprehensive list of mitigation strategies in the overall multi-jurisdictional plan. The list was discussed at a meeting of the City Manager, City Police Chief, Building Official, Public Works Director, and Planning Division Manager on February 7, 2007. At the meeting, all of the mitigation strategies were reviewed. The tentative decision on priority was made based on a variety of criteria, not simply on an economic cost-benefit analysis. These criteria include being technically and administratively feasible, politically acceptable, socially appropriate, legal, economically sound, and not harmful to the environment or our heritage.

Over time, we are committed to developing better hazard and risk information to use in making those trade-offs. We are not trying to create a disaster-proof region, but a disaster-resistant one. In addition, several of the strategies are existing City programs.

These draft priorities were submitted to the City Manager for review. The draft priorities were then provided to the City Council on February 20, 2007. The public had the opportunity to comment on the draft priorities. The final strategies (as shown in the attached Table) will become an *Implementation Appendix* to the City's *Safety Element*.

In addition, the City examined the hazard exposure information to City-owned critical facilities supplied by ABAG. The City has determined that the combination of construction type, age, and shaking exposure to Maple Hall at City Hall is significant. Therefore, the City plans to apply for a Pre-Disaster Mitigation grant to retrofit this building.

## **The Plan Maintenance and Update Process**

The City's Public Works Department will ensure that ***monitoring*** of this Annex will occur. The plan will be monitored on an on-going basis. However, the major disasters affecting our community, legal changes, notices from ABAG as the lead agency in this process, and other triggers will also be used. Finally, the Annex will be a discussion item on the agenda of the meeting of City department heads at least once a year in April. At that meeting, the department heads will focus on ***evaluating*** the Annex in light of technological and political changes during the past year or other significant events. This group will be responsible for determining if the plan should be updated.

The City of San Pablo is committed to reviewing and ***updating*** this plan annex at least once every five years, as required by the Disaster Mitigation Act of 2000. The Public Works Director will contact ABAG four years after this plan is approved to ensure that ABAG plans to undertake the plan update process. If so, the City again plans to participate in the multi-jurisdictional plan. If ABAG is unwilling or unable to act as the lead agency in the multi-jurisdictional effort, other agencies will be contacted, including the County's Office of Emergency Services. Counties should then work together to identify another regional forum for developing a multi-jurisdictional plan.

The ***public*** will continue to be involved whenever the plan is updated, and as appropriate during the monitoring and evaluation process. Prior to adoption of updates, the City will provide the opportunity for the public to comment on the updates. A public notice will be posted prior to the meeting to announce the comment period and meeting logistics.